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PRESENTED AT THE PANEL ON SMOKING AND HEALTH

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(GREETINGS TO HOSTS, GUESTS, FRIENDS, ETC.)

I AM DELIGHTED TO JOIN YOU THIS AFTERNOON TO PLAY A SMALL PART IN THIS HISTORIC CELEBRATION OF HARVARD'S 350TH ANNIVERSARY AND THE KENNEDY SCHOOL'S 50TH ANNIVERSARY.

IT ALL SOUNDS LIKE SUCH A LONG TIME. BUT HARVARD HAS BEEN HERE FOR ONLY 7 GENERATIONS...BACK TO THE TIME OF OUR

GREAT- GREAT- GREAT- GREAT- GREAT-GRANDPARENTS.

THAT'S NOT SO FAR BACK. MANY OF YOU PROBABLY KNOW OF TWO OR THREE GREAT-GRANDPARENTS IN YOUR OWN FAMILY OR IN YOUR COMMUNITY TODAY...MEN AND WOMEN WHO'VE LIVED A LITTLE BIT MORE THAN A CENTURY.

THEY HAD TO HAVE BEEN BORN IN THE AGE OF BRAHMS AND TOLSTOY...AND LOUIS PASTEUR...AND ROBERT KOCH. AND THEY MIGHT HAVE HEARD STORIES TOLD BY THEIR OWN GRAND-PARENTS OF THE DELIGHTS OF MOZART AND GOETHE...AND THE WONDERS OF LAVOISIER AND EDWARD JENNER.

SO IT'S NOT SO LONG AGO.

BUT A LOT HAS HAPPENED IN MEDICINE AND HEALTH ACROSS THOSE GENERATIONS. AND WE'VE LEARNED A GREAT MANY THINGS THAT CAN HELP OUR OWN GENERATION BE A LITTLE BIT HEALTHIER AS WE LIVE A LITTLE BIT LONGER.

THAT'S WHAT THIS SMOKING PROBLEM IS REALLY ALL ABOUT. WHAT MY PREDECESSORS AND I HAVE BEEN DOING IS TELLING PEOPLE THAT SCIENCE HAS COME UP WITH NEW AND IMPORTANT INFORMATION -- SOMETHING SCIENCE HAS BEEN DOING SINCE ARISTOTLE -- THAT PROVES THE LETHALITY OF CIGARETTE SMOKING.

OVER THE PAST 30 YEARS ALMOST A GENERATION OF BIOMEDICAL RESEARCHERS, PHYSICIANS, AND PUBLIC HEALTH PERSONNEL FROM MORE THAN 80 COUNTRIES HAVE GENERATED THE HARD EVIDENCE LINKING CIGARETTE SMOKING TO ABOUT TWO DOZEN SERIOUS DISEASE CONDITIONS.

THE WORLD MEDICAL LITERATURE HAS AN INVENTORY OF MORE THAN 50,000 STUDIES ON SMOKING AND HEALTH. THE OVERWHELMING MAJORITY OF THESE STUDIES CLEARLY IMPLICATE CIGARETTE SMOKING EITHER AS A CONTRIBUTING CAUSE OR AS THE PRIMARY CAUSE OF ILLNESS AND DEATH:

WE KNOW THAT A PERSON WHO SMOKES HAS A RISK OF SUDDEN CARDIAC DEATH THAT IS 3 TIMES THE RISK OF A NON-SMOKER.

WE KNOW THAT ABOUT 85 PERCENT OF ALL LUNG CANCERS IN THE UNITED STATES ARE CAUSED BY CIGARETTE SMOKING. PEOPLE WHO SMOKE A COUPLE OF PACKS A DAY HAVE A LUNG CANCER DEATH RATE THAT IS 25 TIMES GREATER THAN THE DEATH RATE FOR NON-SMOKERS.

WE KNOW THAT CIGARETTE SMOKING IS THE MAJOR CAUSE OF CHRONIC OBSTRUCTIVE LUNG DISEASE, ESPECIALLY EMPHYSEMA AND CHRONIC BRONCHITIS. IN FACT, EMPHYSEMA IS QUITE COMMON AMONG OLDER PEOPLE WHO'VE SMOKED, BUT IT'S RARELY FOUND AMONG OLDER NON-SMOKERS. DOESN'T THAT TELL YOU SOMETHING?

AND WE KNOW THAT PREGNANT WOMEN HAVE AN INCREASED RISK OF DELIVERING THEIR BABIES PREMATURELY...OF ABORTING THE FETUS SPONTANEOUSLY...OF DELIVERING A STILLBORN CHILD...OR OF GIVING BIRTH TO A CHILD WHO SIMPLY WON'T HAVE THE ABILITY TO SURVIVE MORE THAN A FEW DAYS OUTSIDE THE WOMB.

THOSE ARE THE FACTS OF A CASE THAT IS SCIENTIFICALLY
CONCLUSIVE:

SMOKING IS THE LEADING PREVENTABLE CAUSE
OF DISEASE AND DEATH IN THIS COUNTRY.

THAT VERDICT OF SCIENCE HAS BEEN RENDERED EVER SINCE THE FIRST
"SURGEON GENERAL'S REPORT ON SMOKING AND HEALTH," RELEASED IN 1964 BY
THEN-SURGEON GENERAL LUTHER L. TERRY.

BY THE TIME I ASSUMED THE POSITION OF SURGEON GENERAL IN 1981,
ANOTHER DOZEN REPORTS HAD BEEN RELEASED BY THREE MORE SURGEONS
GENERAL: DRS. STEWART, STEINFELD, AND RICHMOND. BY THE TIME DR.
JULIUS RICHMOND LEFT WASHINGTON AND RETURNED HERE TO HARVARD, THE
SCIENTIFIC CASE AGAINST CIGARETTES WAS AIR-TIGHT.

NEVERTHELESS, SINCE 1981 WE'VE PRODUCED 4 MORE REPORTS. THEY DOCUMENT THE RELATIONSHIP BETWEEN SMOKING AND CANCER, SMOKING AND CARDIOVASCULAR DISEASE, SMOKING AND LUNG DISEASE, AND, THE MOST RECENT ONE, ON SMOKING AS AN ADDITIONAL OCCUPATIONAL HAZARD.

I MIGHT ADD THAT THIS PROCESS OF RESEARCH AND PUBLIC EDUCATION HAS CONTINUED THROUGH 5 PRESIDENTS -- TWO DEMOCRATS AND THREE REPUBLICANS -- AND THROUGH 10 SESSIONS OF THE UNITED STATES CONGRESS.

IT HAS CONTINUED THROUGH LAVISH BUDGETS AND THROUGH TIGHT BUDGETS AND IS STILL GOING...GRAMM-RUDMAN-HOLLINGS NOTWITHSTANDING.

THE GOVERNMENT'S LATEST STEP HAS BEEN TO REQUIRE CIGARETTE MANUFACTURERS TO PUT NEW AND STRONGER WARNINGS ON THEIR PACKAGES AND IN ALL THEIR ADVERTISING.

THERE ARE 4 VERSIONS AND THEY MUST BE ROTATED EVERY 3 MONTHS.

THERE'S NOTHING FANCY OR VAGUE ABOUT THESE WARNINGS:

* ONE CATEGORICALLY SAYS THAT "...SMOKING CAUSES LUNG CANCER, HEART DISEASE, EMPHYSEMA, AND MAY COMPLICATE PREGNANCY."

* ANOTHER IS MORE SPECIFIC AND WARNS THAT "...PREGNANT WOMEN WHO SMOKE RISK FETAL INJURY AND PREMATURE BIRTH."

* A THIRD MAKES IT CLEAR TO EVERYONE THAT "...CIGARETTE SMOKE CONTAINS CARBON MONOXIDE."

* THE FOURTH WARNING SAYS THAT "...QUITTING SMOKING NOW GREATLY REDUCES SERIOUS HEALTH RISKS." IN OTHER WORDS, IT'S NEVER TOO LATE TO QUIT. IT'S NOT EASY TO DO, SINCE NICOTINE IS THE MOST ADDICTIVE DRUG IN OUR SOCIETY. BUT IT'S NEVER TOO LATE TO DO.

THEY AREN'T WHAT YOU'D CALL "WISHY-WASHY" MESSAGES. THEY'RE THE BLUNT TRUTH AND ARE FIRMLY IMPLANTED IN FEDERAL LAW...CHAPTER 15, SECTION 1331 OF THE UNITED STATES CODE, TO BE EXACT.

THAT, IN ABBREVIATED FORM, IS THE CASE AGAINST CIGARETTES SO FAR.

BUT THE INFORMATION GATHERED SO FAR MAINLY CONCERNS THE HEALTH OF PEOPLE WHO SMOKE. HOWEVER, THAT'S BEGINNING TO CHANGE, SINCE WE NOW KNOW THAT BEHIND EVERY CLOUD OF MAINSTREAM SMOKE...IS A CLOUD OF SIDESTREAM SMOKE.

WHAT DOES THAT MEAN?

SMOKERS ENGAGE IN "MAINSTREAM" SMOKING...THAT IS, THEY INHALE THE SMOKE DIRECTLY INTO THEIR LUNGS FROM THE CIGARETTE AND NOT FROM THE AMBIENT AIR AROUND THEM. BUT THE "SIDESTREAM" SMOKER INVOLUNTARILY INHALES THE CIGARETTE SMOKE THAT'S IN THE AMBIENT AIR.

ABOUT 10 YEARS AGO WE BEGAN TO PERCEIVE THIS NEW ASPECT OF THE SMOKING ISSUE. WE BEGAN TO LEARN ABOUT THE EFFECTS OF CIGARETTE SMOKE UPON THE HEALTH OF NONSMOKERS...THE SO-CALLED "SIDESTREAM" SMOKERS.

FOR EXAMPLE, THE CHILDREN OF PARENTS WHO SMOKE HAVE A MUCH HIGHER RATE OF COLDS AND OTHER UPPER RESPIRATORY INFECTIONS, COMPARED TO CHILDREN WHOSE PARENTS DO NOT SMOKE.

WE'VE ALSO LEARNED THAT THE NONSMOKING WIFE OF A SMOKER RUNS A HIGHER RISK OF LUNG CANCER THAN DOES THE NONSMOKING WIFE OF A NONSMOKER. BEFORE LONG, WE EXPECT TO HAVE CLEAR EVIDENCE THAT THE SAME IS ALSO TRUE FOR THE INCIDENCE OF HEART DISEASE, EMPHYSEMA, AND CONGESTIVE LUNG DISEASE AMONG NONSMOKING WIVES OF SMOKERS.

AND "SIDESTREAM" SMOKERS EXPOSED TO OTHER PEOPLES' HEAVY SMOKING IN THE SAME ENCLOSED WORK-SPACE ABSORB AS MUCH SMOKE AS IF THEY THEMSELVES WERE "MAINSTREAM" SMOKING TWO OR THREE CIGARETTES PER DAY.

JUST WHAT IS IT IN CIGARETTE SMOKE THAT'S SO HARMFUL FOR EVERYBODY, SMOKER AND NON-SMOKER ALIKE?

WELL, FOR STARTERS BOTH THE "SIDESTREAM" SMOKER AND THE "MAINSTREAM" SMOKER BREATHE IN THE SAME 4,000 OR SO CONSTITUENTS OF CIGARETTE SMOKE. THEY BOTH INHALE THE SAME TARS, THE SAME NAPHTHALENE, THE SAME PYRENE, AND THE SAME BENZOPYRENE. THEY ABSORB THE SAME CARBON MONOXIDE, METHANE, AMMONIA, ACETYLENE, AND HYDROGEN CYANIDE.

ODDLY ENOUGH, SCIENTISTS HAVE DISCOVERED THAT SOME OF THESE TOXIC AGENTS ARE FOUND IN GREATER CONCENTRATIONS IN SIDESTREAM SMOKE THAN IN MAINSTREAM SMOKE:

- o TAR, FOR EXAMPLE, THE SUBSTANCE THAT IS THE MOST CARCINO-GENIC, IS 70 PERCENT MORE CONCENTRATED IN SIDESTREAM SMOKE THAN IN MAINSTREAM SMOKE...
- o CARBON MONOXIDE IS TWO AND A HALF TIMES MORE CONCENTRATED IN SIDESTREAM SMOKE THAN IN MAINSTREAM SMOKE...
- o NICOTINE IS 2.7 TIMES GREATER IN SIDESTREAM SMOKE...
- o AMMONIA IS 73 TIMES MORE CONCENTRATED IN SIDESTREAM SMOKE...AND SO ON.

THIS OUGHT TO BE ALARMING NEWS FOR TWO-THIRDS OF THE AMERICAN ADULT POPULATION...THE PEOPLE WHO DO NOT NOW SMOKE...OR WHO THINK THEY DO NOT NOW SMOKE.

THEY MAY HAVE SAVED THEMSELVES FROM THE "STINK" AND THE "MESS" OF SMOKING...BUT THEY ARE NOT COMPLETELY PROTECTED FROM ALL THE HEALTH HAZARDS OF SMOKING. THOSE HAZARDS ARE IN THAT SAME AMBIENT AIR WE NON-SMOKERS SHARE WITH SMOKERS.

IT'S THAT KIND OF INFORMATION THAT HAS BECOME THE FOUNDATION OF THE MOVEMENT BY NON-SMOKERS TO BAN SMOKING IN VIRTUALLY EVERY PUBLIC SPACE AND IN ALL PUBLIC TRANSPORT ALL ACROSS THE UNITED STATES AND, I AM PLEASED TO REPORT, IN A NUMBER OF OTHER COUNTRIES AS WELL.

IT'S A TREMENDOUS GRASSROOTS CAMPAIGN AND IT'S DIRECTED AGAINST ONE OF THE MOST POWERFUL MEMBERS OF THE AMERICAN ECONOMY.

YOU'RE AWARE, I AM SURE, OF THE ECONOMIC POWER OF THE CIGARETTE INDUSTRY. IT ACCOUNTS FOR 2.5 PERCENT OF THE NATION'S GROSS NATIONAL PRODUCT, OR \$60 BILLION. IT SPENDS OVER \$2 BILLION A YEAR JUST ON ADVERTISING. THAT'S ABOUT \$8 FOR EVERY PERSON IN THE UNITED STATES... SMOKER AND NON-SMOKER ALIKE.

DESPITE THE BILLIONS OF DOLLARS THAT IT'S SPENDING, I STILL BELIEVE THAT THE DAYS OF THE CIGARETTE INDUSTRY ARE NUMBERED.

HISTORY IS ON THE SIDE OF THE NON-SMOKER. THE CIGARETTE INDUSTRY AS WE KNOW IT, FOR ALL ITS ENORMOUS ECONOMIC POWER, WILL DISAPPEAR OVER THE NEXT 20 YEARS AND WE WILL BECOME A SMOKE-FREE SOCIETY, WHICH IS A GOAL I SET FOR OUR COUNTRY 2 YEARS AGO.

FOR EXAMPLE, I BELIEVE THE ANTI-SMOKING ATTITUDE IN THIS COUNTRY WILL BECOME SO FORCEFUL THAT, WELL BEFORE THE TURN OF THE CENTURY, SMOKERS WILL NOT LIGHT UP IN THE PRESENCE OF NON-SMOKERS WITHOUT ASKING FOR AND OBTAINING THEIR PERMISSION

WE ARE ALREADY SEEING THE DECLINE OF PER CAPITA CIGARETTE CONSUMPTION...DOWN TO ITS LOWEST LEVELS SINCE 1944...A TREND THAT LOOKS LIKE IT WILL CONTINUE.

DESPITE MERGERS AND BUY-OUTS INVOLVING FOOD COMPANIES, THE CIGARETTE INDUSTRY IS NOT -- AND WILL NEVER AGAIN BE -- A GROWTH INDUSTRY.

I SINCERELY HOPE THAT THE MEN AND WOMEN WHO RUN THE CIGARETTE COMPANIES ARE DOING THEIR HOMEWORK. I HOPE THEY'RE BEGINNING TO "THINK THE UNTHINKABLE"...THAT IS, I HOPE THEY'RE PREPARING THEMSELVES FOR THE KIND OF ROLE THEY ALSO CAN PLAY IN A COUNTRY THAT IS SMOKE-FREE.

I CAN ASSURE THEM -- AND I WANT TO ASSURE THE AMERICAN PEOPLE AS WELL -- THAT THE PUBLIC HEALTH SERVICE AND ITS SURGEON GENERAL WILL DO WHATEVER WE CAN, CONSISTENT WITH OUR COMMITMENT AND WITH THE LAW, TO HELP THOSE INDUSTRY LEADERS BECOME THE KIND OF EMPLOYERS AND THE KIND OF CITIZENS WHO THRIVE IN A BUSINESS THAT ENHANCES LIFE...NOT THE KIND THAT INVITES DEATH.

SO I THINK THE AMERICAN PEOPLE ARE WINNING THE BATTLE AGAINST SMOKING, THE SINGLE MOST SIGNIFICANT AND MOST PREVENTABLE CAUSE OF DEATH IN OUR SOCIETY.

OUR MOTIVATION IS TO PROTECT AND STRENGTHEN THE PUBLIC HEALTH.

AND OUR WEAPONS IN THIS BATTLE ARE BIOMEDICAL SCIENCE...PUBLIC EDUCATION...AND THE LAW.

THANK YOU.

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